

Notice of Allowability

Application No.

09/801,241

Applicant(s)

LATTA, DAVID

Examiner

Donna K. Mason

Art Unit

2111

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Paper filed on June 13, 2005.
2. ☒ The allowed claim(s) is/are 41-43 and 47-68 (renumbered 1-25).
3. ☒ The drawings filed on 27 July 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

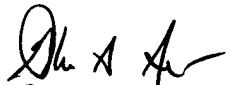
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


Glenn A. Auve
Primary Patent Examiner
Technology Center 2100

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. The application has been amended as follows:

63. (**Currently Amended**) The processing device of Claim 43, wherein said macro function comprises a soft function being at least ~~party~~partly configurable by a user.

3. Authorization for this examiner's amendment was given (for claims 66-68) in a telephone interview with Robert F. Gazdzinski (Reg. No. 39,990) on August 17, 2005.

The application has been amended as follows:

66. (**Currently Amended**) A user-configurable processing means having a user-configured processor interface means and digital signal processing (DSP) core associated therewith, comprising:

a reduced instruction set computer (RISC) core ~~means-in~~ operative communication with said interface means;

at least one first means for transferring data and signals to and from a storage device;

at least one second means for transferring data and signals to and from a macro function;

means for transferring data and signals between said at least one first means and said at least one second means; and

~~means for arbitrating an arbitration means adapted to arbitrate access to various~~ portions of said storage device by said macro function;

wherein said DSP core is specifically configured by said user to interoperate with at least one of (i) an instruction and operand decode means, (ii) auxiliary register means, and (iii) on-core memory means of said RISC means.

67. **(Currently Amended)** A processing device having a processor interface device associated therewith, comprising:

a processor core in operative communication with said interface device;

at least one memory port, said at least one memory port adapted to transfer data and signals to and from a storage device;

at least one function port, said at least one function port adapted to transfer data and signals to and from a macro function;

at least one function controller operatively coupled to said at least one function port, said controller being adapted to control at least one aspect of the operation of said at least one port;

data transfer means adapted to transfer data and signals between said at least one memory port and said at least one function port, and

Art Unit: 2111

~~means for arbitrating arbitration means adapted to arbitrate access to various~~
portions of said storage device by said macro function;

wherein said processor core comprises a configuration determined at least in part based on user selections, said selections causing a prototype core description to be modified in order to produce said configuration.

68. **(Currently Amended)** A user-configurable processing means having a first processor core, a user-configured processor interface means, and second core associated therewith, the interface means comprising:

~~means for transferring at least one memory port means, said at least one~~
~~memory port means adapted for the transfer of data and signals to and from a storage~~
device;

~~means for transferring at least one function port means and associated controller~~
~~means, said at least one function port means and controller means cooperating to~~
~~transfer data and signals to and from a macro function;~~

data transfer means adapted to transfer data and signals between said at least one memory port means and said at least one function port means, and

~~means for arbitrating arbitration means adapted to arbitrate access to various~~
portions of said storage device by said macro function;

wherein said second processor core is specifically configured by said user at time of design to inter-operate with an instruction and operand decode mechanism, auxiliary register, and on-core memory resources of said first processor core.

Allowable Subject Matter

4. Claims 41-43 and 47-68 are allowed.
5. The following is an examiner's statement of reasons for allowance: The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for the allowance of claims 41, 47-53 and 66 is the inclusion of the limitation, "wherein said DSP core is specifically configured by said user to inter-operate with said at least one of (i) the instruction and operand decode mechanisms (ii) auxiliary registers and (iii) on-core memory resources of said RISC processor", as recited in claims 41 and 66. The prior art is not directed to a processor device, as claimed, where a user configures a DSP to inter-operate with specific features of a second processor.

The primary reason for the allowance of claims 42, 54-59 and 67 is the inclusion of the limitation "wherein said processor core comprises a configuration determined at least in part based on user selections, said selections causing a prototype core description to be modified in order to produce said configuration" as recited in independent claims 42 and 67. The prior art is not directed to a processor device, as claimed, where the processor core includes a configuration based on user selections, which cause a prototype core description to be modified in order to produce the configuration.

The primary reason for the allowance of claims 43, 60-65 and 68 is the inclusion of the limitation "wherein said second processor core is specifically configured by said user at time of design to inter-operate with the instruction and operand decode

mechanism, auxiliary register, and on-core memory resources of said first processor core” as recited in claims 43 and 68. The prior art is not directed to a processor device, as claimed, where a user configures a DSP to inter-operate with specific features of a second processor.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion

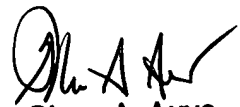
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donna K. Mason whose telephone number is (571) 272-3629. The examiner can normally be reached on Monday - Friday, 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Mark H. Rinehart can be reached on (571) 272-3632. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2111

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DKM



Glenn A. Auve
Primary Patent Examiner
Technology Center 2100